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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/617,310 07/14/00 NARAI

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2100 PENNSYLVANIA AVENUE NW  
WASHINGTON DC 20037-3202

EXAMINER

JOYCE, W

ART UNIT

PAPER NUMBER

3682

8

DATE MAILED: 11/09/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

## Office Action Summary

Application No.

09/617,310

Applicant(s)

NARAI ET AL.

Examiner

William C. Joyce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This is the first office action on the merits for the above identified patent application filed on July 14, 2000.

#### ***Election/Restrictions***

1. Claims 7-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

3. The formal drawings, filed on November 6, 2000 have been entered.

#### ***Claim Objections***

4. Claims 1-6 are objected to because of the following informalities: the limitation "non-metallic inclusion" must be changed to --a non-metallic inclusion-- on lines 5-6 of claim 1, line 3 of claim 2, lines 2-3 of claim 4, and line 3 of claim 5. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 3, 5, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 2, the limitation “the maximum diameter of non-metallic inclusion disposed with the layer is less than 0.115mm” is not fully understood because the limitation does not appear to further define the device over claim 1. More clearly, the limitation “the layer does not contain non-metallic inclusion having the maximum diameter of 0.115mm or more” (claim 1) appears to be same as the limitation “the maximum diameter of non-metallic inclusion disposed within the layer is less than 0.115mm” (claim 2).
- b. Claim 3, lines 2-3, the limitation “rolling member” must be changed to --the rolling member-- to provide proper antecedent basis for the claims.
- c. Claim 5, the limitation “the maximum diameter of non-metallic inclusion disposed with the layer is less than 0.1mm” is not fully understood because the limitation does not appear to further define the device over claim 4. More clearly, the limitation “the layer does not contain non-metallic inclusion having the maximum diameter of 0.1mm or more” (claim 4) appears to be same as the limitation “the maximum diameter of non-metallic inclusion disposed within the layer is less than 0.1mm” (claim 5).

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d. Claim 6, lines 2-3, the limitation "rolling member" must be changed to --the rolling member-- to provide proper antecedent basis for the claims.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Okubo et al. (Japanese reference 11-190408).

Okubo et al. discloses a manufacturing procedure for producing a disk for a toroidal continuously variable transmission. Referring to sections 11-14, Okubo et al. discloses that the size of non-metallic inclusions are known to influence the strength of a material with respect to repeated bending stress. Accordingly, the manufacturing procedure of Okubo et al. prevents non-metallic inclusions of high density from being present within a predetermined distance 1.5b of the traction surface, wherein a high density inclusion is .01mm or larger (for example, see sections 22 and 77). Examiner notes that the predetermine distance 1.5b is considered to fall within the limitation .4mm or less. In reference to Okubo et al., if you consider the outer layer of the traction

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surface to have an infinitely small depth, the outer layer would not contain any high density non-metallic inclusions and would be positioned less than .4mm from the traction surface.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Note the teachings of the effect of non-metallic inclusions on a machine component of Kiuchi et al. ('210), Mitamura et al. ('531), Narai et al. ('323), and Murakami et al. ('140).


-Note US Patent 6,113,514 which corresponds to Japanese reference 11-190408.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (703) 305-5114. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
William C. Joyce  
November 8, 2001